

Dear Family,

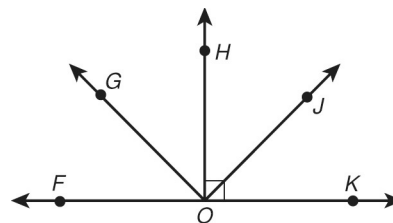
I am so happy and fortunate to have your child in the geometry this semester. In a separate document, I have sent you the class syllabus. The class website is <http://watertowngeometry.wikispaces.com/>. At the website, I post the assignments. This document is updated daily. Most assignments are given one day and are due the next day. However, the assignments will not be submitted until the day of the assessment. The assignments for the first chapter are listed at the bottom of this letter. If your child is struggling to complete their work, I am available in the morning from 7:30 in my classroom and after school from 3:30 to 5:00. If your child has any part of block 1 open I am also available in room 720. I encourage students to come-in on their own. Sometimes, I require them to come-in.

In class, we will complete activities to support the learning introduced and spend a lot of the time working on their assignments. Please encourage your child to take advantage of this time. Otherwise, they may find themselves buried by the amount of work. Although we have daily work, the amount of homework should be minimal for students that are in class. If you find your child is having a lot of homework, the first question is to ask what they are doing in class.

Every lesson in class has a corresponding study guide that should be completed by your child. Most of the time we complete this study guide together in class. Sometimes, I require the students to complete the study guide independently. All of the study guides are posted the class website, at <http://watertowngeometry.wikispaces.com/> Every example that we complete in class has a corresponding video that goes with the example that is available to you child. Sometimes we watch the video together in class, sometimes I have students watch the videos independently.

In this chapter, your child will learn basic concepts such as identifying points and planes, measuring and constructing segments and angles, and problem-solving formulas. This provides the foundation needed for further study in geometry and for careers in areas such as graphic arts and architecture. Your child will learn about different types of angles and how to describe special pairs of angles.

Look at the figure.



1. Name an acute angle.

$\angle KOJ$

2. Name a right angle.

$\angle HOK$

3. Name an obtuse angle.

$\angle GOK$

4. Name a straight angle.

$\angle FOK$

5. Name two adjacent angles.

$\angle HOJ$ and $\angle JOK$

6. Name two complementary

$\angle HOJ$ and $\angle JOK$

7. Name two supplementary angles.

$\angle JOK$ and $\angle JOF$

Your child will learn to identify the **midpoint** of a segment and then use the midpoint to find the length of the segment.

Y is the midpoint of segment WZ, and $WY = 7x$ & $YZ = 2x + 5$

What is the value of x?



Solve for x.

$$WY = YZ$$

$$7x = 2x + 5$$

$$\begin{array}{r} -2x \quad -2x \\ \hline \end{array}$$

$$\frac{5x}{5} = \frac{5}{5}$$

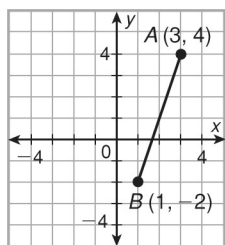
$$x = 1$$

Your child will also use the Distance Formula and the Pythagorean Theorem to find the distance between two points.

The Distance Formula is $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$.

The Pythagorean Theorem is $a^2 + b^2 = c^2$, where a and b are the lengths of the legs of a right triangle and c is the length of the hypotenuse.

Find the distance between points A and B in this coordinate plane using the Distance Formula and the Pythagorean Theorem.



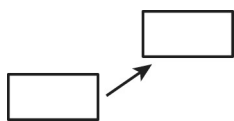
Distance Formula Theorem

$$\begin{aligned} d &= \sqrt{(3 - 1)^2 + (4 - (-2))^2} \\ &= \sqrt{(2)^2 + (6)^2} \\ &= \sqrt{4 + 36} \\ &= \sqrt{40} \\ &\approx 6.3 \end{aligned}$$

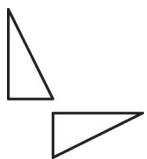
Pythagorean

$$\begin{aligned} a^2 + b^2 &= c^2 \\ a &= 2 \text{ \& } b = 6. \\ c^2 &= 2^2 + 6^2 \\ c &= \sqrt{4 + 36} \\ &= \sqrt{40} \\ &\approx 6.3 \end{aligned}$$

Your child will also learn about transforming plane figures using translations, rotations, and reflections. A **translation** slides a figure along a line without turning. A **rotation** turns the figure around a point, called the center of rotation. A **reflection** flips the figure across a line to create a mirror image.



translation



rotation



reflection

The following are the assignments and the assessments for this unit. As a reminder the actual dates when the assignments are assigned can be found on the [assignment calendar](#) on my [school webpage](#). This can be found under classrooms on the [high school webpage](#).

Assignments & quizzes

Chapter 1 Are You Ready Pretest & skills.

1-1 Understanding Points, Lines, and Planes Study Guide: (*p 10*) 13, 15-21, 22-30 even, 31-34, 36, 38.

1-2 Measuring and Constructing Segments: (*p 17*) 11-18, 19, 20, 22, 27, 30, 32, 34, 35.

1-3 Measuring and constructing angles: (*p 25*) 11, 12, 13, 15-18, 20, 30, 32, 33, 37, 39.

1-4 Pairs of Angles (*p 32*) 15-21 odd, 22, 23, 24.

Ready to Go On Section 1A pretest & posttests.

Chapter 1 Quiz 1

1-5 Using Formulas in Geometry (*p 38*) 11, 12, 13, 15, 16, 23, 24, 27, 29, 30, 34, 36, 38, 42, 44-46.

1-6 Midpoint and Distance in the Coordinate Plane: (*p 47*) 12-17, 19, 20, 22, 24, 25, 26, 29-33.

1-7 Transformations in the Coordinate Plane (pp 53-55) 8-12, 28.

Geometry Ready to Go On Section 1b Pre-Test & posttests.

Chapter 1 quiz 2.

Chapter 1 Practice Test.

Chapter 1 Test.